**Title:** Light-curing Units in Dentistry: A Contemporary Approach

**Abstract:**

The purpose of this article is to introduce common light-curing units.

Successful curing depends on many factors of which the most important is the correct functioning of the curing unit to emit light of sufficient intensity and quality. If any factor is at a less than adequate level, the light-sensitive materials will not polymerize completely, which may be responsible for decreased longevity of the restoration.

The dental industry has focused on reducing the curing time by developing higher intensity curing lights but each benefit comes into a cost. As the monomers link, they fit together more densely so it results shrinkage stress. Higher intensity leads to faster rate of polymerization which causes more stress indeed. As a light curing unit is used to initiate the polymerization process, the specification of the light source can widely affect the final outcomes. Types of curing light and modes of curing have been shown to affect the degree of polymerization and related shrinkage of resin based composites.

Today, four main light-curing units are available: halogen bulbs (QTH), plasma arc lamps (PAC), argon ion lasers (LASER), and light emitting diodes (LED). The dentist can now choose from a variety of curing lights, light intensities and curing methods. Selecting the proper device needs a deep knowledge about the properties of each one.

**Conclusion:**

This review discusses the different types of contemporary light-curing units and highlights the clinical considerations that are important for achieving optimal curing of composite resins in a clinical setting.

**Presentation:** Poster